

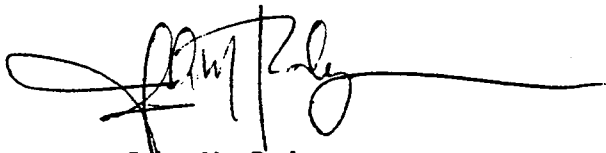
1. PURPOSE. This change transmits revisions to Chapter 4, Air Traffic Control, and Appendix 2, Summary of Establishment and Discontinuance Criteria. It also transmits Appendix 4, Establishment and Discontinuance Criteria for Airport Traffic Control Tower Facilities--Final Rule.

2. EXPLANATION OF CHANGE. This change provides establishment and discontinuance criteria for VFR airport traffic control towers. For the first time, the criteria have been promulgated through Federal administrative regulation. The revised criteria eliminate Phase I. Due to improved automation and the widespread availability of computer equipment, the need no longer exists for preliminary screening through Phase I criteria. The criteria are based on a benefit/cost analysis presented in Report FAA-APO-90-7, "Establishment and Discontinuance Criteria For Airport Traffic Control Towers." Copies of this report are available from APO-220.

3. DISPOSITION OF TRANSMITTAL. After filing the attached pages, this change transmittal should be retained.

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Criteria for Airport Traffic Control Tower Facilities--Final Rule. The benefit/cost analysis underlying the final rule is presented in Report FAA-APO-90-7, "Establishment and Discontinuance Criteria For Airport Traffic Control Towers." The regions shall submit site-specific data required to apply the criteria and validate candidacy with their response to the annual Call For Estimates.

b. Discontinuance. Discontinuance criteria have been promulgated through administrative regulation. The final rule, published in the Federal Register on January 3, 1991, is reproduced in appendix 4. The benefit/cost analysis underlying the final rule is presented in Report FAA-APO-90-7, "Establishment and Discontinuance Criteria For Airport Traffic Control Towers." The regions shall submit site-specific data required to apply the criteria and validate candidacy with their response to the annual Call For Estimates. \*

41. APPROACH CONTROL SERVICE.

a. Establishment. Approach control service may be implemented by an FAA control tower at an airport having a radio navigational aid that is suitable for holding purposes or an approved approach procedure, or if the airport has an ILS installed or programmed, provided that the service can be implemented within the existing resources of the facility. This service may be extended to an adjacent airport within 30 n.m. using direct or indirect communications if air/ground coverage exists at the final approach altitude over the navigational aid serving the adjacent airport. Communications equipment (VHF and/or UHF, as required) necessary to provide a discrete approach control channel and associated landlines may be requested when:

(1) At FAA Tower Airport. 5,000 or more annual instrument operations are recorded or the airport has an ILS installed or programmed.

(2) At Adjacent Non-Tower Airports. 1,500 or more annual instrument operations or 1,825 or more scheduled annual passenger originations (as recorded in Airport Activity Statistics, CAB/FAA, or other counts acceptable to the FAA) are recorded and the airport is within 30 n.m. of the approach control facility.

(1) At FAA Tower Airports. 3,500 or less annual instrument operations and 1,095 or less scheduled annual passenger originations are recorded.

(2) At Adjacent Non-Tower Airports. 1,000 or less annual instrument operations and 1,095 or less scheduled annual passenger originations are recorded.

42. COMBINED STATION/TOWER (CS/T).

a. Establishment. CS/T's are established at FAA tower locations where there is a requirement for 24 hour staffed, air/ground en route communications services that are normally associated with FSS functions. The number of existing and programmed CS/T facilities adequately satisfies that requirement.

b. Separation of CS/T's. The station functions of a CS/T will be separated from the FAA air traffic control tower:

(1) in conjunction with the establishment of radar approach control which will be provided from the tower cab; or

(2) when the air/ground en route communications services can be provided remotely by an adjacent FSS and separation of the facility will result in a positive cost/benefit; or

(3) when increased activity, personnel, and equipment at the CS/T have overcrowded the tower cab to the point where the required operating positions cannot be accommodated in the space available; or

(4) when the air/ground en route communications service that are normally associated with FSS functions are no longer required for adequate communications coverage.

**FIGURE 3. SUMMARY OF ESTABLISHMENT AND DISCONTINUANCE CRITERIA  
FOR CHAPTER 4, AIR TRAFFIC CONTROL**

Facility or Service	Establishment	Discontinuance	Additional Facilities or Improvements
* Airport Traffic Control Tower, Paragraph 40.	Benefit/cost ratio greater than or equal to one.	Benefit/cost ratio less than one.	
Approach Control Service Paragraph 41.	<u>Tower Airports</u> Within existing tower resources, OR ILS or 5,000 or more annual instrument operations.	None, if established within existing resources.  3,500 or less annual instrument operations and less than 1,095 passenger originations.	
	<u>Non-Tower Airports</u> Within existing resources, OR 1,500 or more annual instrument operations or 1,825 passenger originations.	None, if established within existing resources.  1,000 or less annual instrument operations and less than 1,095 passenger originations.	

FIGURE 3. SUMMARY OF ESTABLISHMENT AND DISCONTINUANCE CRITERIA  
FOR CHAPTER 4, AIR TRAFFIC CONTROL (CONTINUED)

Facility or Service	Establishment	Discontinuance	Additional Facilities or Improvements
Combined Station/ Tower (CS/T), Paragraph 42.	FAA tower airport with requirement for 24-hour staffed air/ground en route communications.	En route air/ground communications coverage no longer required, OR may be provided remotely from adjacent FSS.	
Tower En Route Control, Paragraph 43.	When within existing resources and 5 or more annual IFR peak day flights exchanged, OR 25 or more annual IFR peak day flights exchanged at localities requiring additional landlines or communications.	None at locations when within existing resources and 10 or less annual IFR peak day flights at localities requiring additional resources.	
Airport Surface Detection Equipment (ASDE), Paragraph 44.	The airport has a Category III runway, or that the tower records 180,000 or more annual itinerant operations, of which 100,000 or more are annual certificated route air carrier operations.	150,000 or less annual itinerant operations and/or less than 80,000 annual certificated route air carrier operations.	
Automatic Terminal Information Service (ATIS), Paragraph 45.	FAA tower airport which is Level II or higher or records at least 50,000 annual itinerant ops.	None-except discontinued when air traffic control services discontinued.	



Administrator. The criteria are further explained in paragraph 40 and appendix 2.

FAA is adding Part 170 to the Federal Aviation Regulations (14 CFR Part 170) to read as follows:

PART 170--ESTABLISHMENT AND DISCONTINUANCE CRITERIA FOR AIR TRAFFIC CONTROL SERVICES AND NAVIGATIONAL FACILITIES

Subpart A--General

Sec.

170.1 Scope.

170.3 Definitions.

Subpart B--Airport Traffic Control Tower

Sec.

170.11 Scope.

170.13 Airport Traffic Control Tower (ATCT) Establishment Criteria.

170.15 ATCT Discontinuance Criteria.

Authority: 49 U.S.C. 1343, 1346, 1348, 1354(a), 1355, 1401, 1421 (as amended by P.L. 100-223), 1422 through 1430, 1472(c), 1502, and 1522; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983).

Subpart A--General

Section 170.1 Scope.

This subpart sets forth establishment and discontinuance criteria for navigation aids operated and maintained by the United States.

Section 170.3 Definitions.

For purposes of this subpart--

Aircraft operations means the airborne movement of aircraft in controlled or noncontrolled airport terminal areas, and counts at en route fixes or other points where counts can be made. There are two types of operations: local and itinerant.

(ii) Are known to be departing for, or arriving from flight in local practice areas located within a 20-mile radius of the airport; or

(iii) Execute simulated instrument approaches or low passes at the airport.

(2) "Itinerant operations" mean all aircraft operations other than local operations.

Air navigation facility (NAVAID) means any facility used, available for use, or designated for use in the aid of air navigation. Included are landing areas; lights; signaling, radio direction-finding, or radio or other electronic communication; and any other structure or mechanism having a similar purpose of guiding or controlling flight or the landing or takeoff of aircraft.

Air traffic clearance means an authorization by air traffic control for an aircraft to proceed under specified traffic conditions within controlled airspace for the purpose of preventing collision between known aircraft.

Air traffic control (ATC) means a service that promotes the safe, orderly, and expeditious flow of air traffic, including airport, approach, departure, and en route air traffic control.

Air traffic controller means a person authorized to provide air traffic service, specifically en route and terminal control personnel.

Airport traffic control tower means a terminal facility, which through the use of air/ground communications, visual signaling, and other devices, provides ATC services to airborne aircraft operating in the vicinity of an airport and to aircraft operating on the airport area.

Alternate airport means an airport, specified on a flight plan, to which a flight may proceed when a landing at the point of first intended landing becomes inadvisable.

Approach means the flightpath established by the FAA to be used by aircraft landing on a runway.

Approach control facility means a terminal air traffic control facility providing approach control service.

Arrival means any aircraft arriving at an airport.

Benefit-cost ratio means the quotient of the discounted life cycle benefits of an air traffic control service or navigation aid facility (i.e., ATCT) divided by the discounted life cycle costs.

Criteria means the standards used by the FAA for the determination of establishment or discontinuance of a service or facility at an airport.

Departure means any aircraft taking off from an airport.

Discontinuance means the withdrawal of a service and/or facility from an airport

Establishment means the provision of a service or facility at a candidate airport.

Instrument approach means a series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing, or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority.

Instrument flight rules (IFR) means rules governing the procedures for conducting flight under instrument meteorological conditions (IMC) instrument flight.

Instrument landing system (ILS) means an instrument landing system whereby the pilot guides his approach to a runway solely by reference to instruments in the cockpit. In some instances, the signals received from the ground can be fed into the automatic pilot for automatically controlled approaches.

Instrument meteorological conditions (IMC) means weather conditions below the minimums prescribed for flight under Visual Flight Rules (VFR).

Instrument operation means an aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility or air route traffic control center (ARTCC).

Life cycle benefits means the value of services provided to aviation users over the life span of a facility or service.

Life cycle costs means the value of research and development costs, investment costs, operation costs, maintenance costs, and termination costs over the life span of a facility or service.

LORAN-C means an electronic navigational system by which hyperbolic lines of position are determined by measuring differences in the time of reception of synchronized pulse signals from two fixed transmitters.

aircraft to make curved and closely spaced approaches to properly instrumented airports.

Noncommercial traffic means all aircraft operations that are conducted free of compensation.

Nonprecision approach procedure means an FAA standard for approaching an IFR runway where no electronic glide slope is available.

Nonscheduled commercial service means the carriage by aircraft in air commerce of persons or property for compensation or hire that are not operated in regularly scheduled service such as charter flights.

Present value (PV) means the value of a stream of future benefits or costs that are discounted to the present.

PVB or BPV means the discounted value of life cycle benefits.

PVC or CPV means the discounted value of life cycle benefits.

PVCM or CMPV means the discounted value of operations and maintenance costs less termination costs over a facility's remaining life cycle.

Runway means a defined rectangular area on a land airport prepared for the landing and takeoff of aircraft along its length.

Runway visual range means an instrumentally derived value based on standard calibrations that represent the horizontal distance a pilot will see down the runway from the approach end.

Scheduled commercial service means the carriage by aircraft in air commerce under Parts 121, 127, and 135 of persons or property for compensation or hire based on published flight schedules.

Separation means the spacing of aircraft in flight and while landing and taking off to achieve their safe and orderly movement.

Takeoff clearance means authorization by an airport traffic control tower for an aircraft to take off.

Traffic pattern means the flow of aircraft operating on and in the vicinity of an airport during specified wind conditions as established by appropriate authority.

VFR traffic means aircraft operated solely in accordance with Visual Flight Rules.

Visual flight rules (VFR) means rules that govern the procedures for conducting flight under visual conditions. The term "VFR" is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, "VFR" is used by pilots and controllers to indicate the type of flight plan.

Visual meteorological conditions (VMC) means meteorological conditions expressed in terms of visibility, distance from clouds, and ceiling equal to or better than specified minima.

#### Subpart B--Airport Traffic Control Towers

##### Section 170.11 Scope.

This subpart sets forth establishment and discontinuance criteria for Airport Traffic Control Towers.

##### Section 170.13 Airport Traffic Control Tower (ATCT) Establishment Criteria.

(a) The following criteria along with general facility establishment standards must be met before an airport can qualify for an ATCT:

(1) The airport, whether publicly or privately owned, must be open to and available for use by the public as defined in the Airport and Airway Improvement Act of 1982;

(2) The airport must be recognized by and contained within the National Plan of Integrated Airport Systems;

(3) The airport owners/authorities must have entered into appropriate assurances and covenants to guarantee that the airport will continue in operation for a long enough period to permit the amortization of the ATCT investment;

(4) The FAA must be furnished appropriate land without cost for construction of the ATCT; and

scheduled and nonscheduled activity may be used.)

(b) An airport meets the establishment criteria when it satisfies paragraphs (a)(1) through (a)(5) of this section and its benefit-cost ratio equals or exceeds one. As defined in Section 170.3 of this Part, the benefit-cost ratio is the ratio of the present value of the ATCT life cycle benefits (BPV) to the present value of ATCT life cycle costs (CPV).

$$BPV/CPV \geq 1.0$$

(c) The satisfaction of all the criteria listed in this section does not guarantee that the airport will receive an ATCT.

#### Section 170.15 ATCT Discontinuance Criteria.

An ATCT will be subject to discontinuance when the continued operation and maintenance costs less termination costs (CMPV) of the ATCT exceed the present value of its remaining life-cycle benefits (BPV):

$$BPV/CMPV < 1.0$$

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